

What is claimed is:

1. A burner for outdoor cooking, comprising:
  - an outer piece of gradually open up cone shape with hollow center at its bottom, the bottom of said outer piece being connected to a venturi pipe, and the said pipe accepting high pressure gaseous and air mixture during cooking,
  - an inner piece whose outer perimeter surface is of gradually opening cone shape, lower section of said outer perimeter surface has equally spaced slots joining holes connecting said outer perimeter surface and inner perimeter surface, and
  - a set of bolt, nut and washer joining said outer and inner-pieces tightly to form a small gas/air chamber for maintaining high gas air mixture pressure,
  - whereby forced high pressurized gas and air mixture from said venturi pipe through said chamber and holes to form inward, upward and concentrating combustion flame joining at a center point above.
2. The burner of claim 1, wherein the upward and outward cone shape wall of the outer piece is taller than the height of said inner piece, to serve as an additional wind guard.
3. The burner of claim 1, wherein slope of holes connecting said outer and inner perimeter surfaces of said inner piece forms an angle with respect to horizontal plane of  $10^{\circ} - 85^{\circ}$ .
4. The burner of claim 1, wherein said outer piece is lower in height than said inner piece, and said inner piece has an outer stretching edge covering the top perimeter of said outer piece tightly, and said inner and outer pieces can be either outward and upward cone type or simply have vertical perimeter walls.
5. A burner for claim 1, wherein outer perimeter surface of said inner piece further comprises equally spaced slots extending through from bottom to top, and said burner further has an adapter with a flat surface having same number of slots on its outer perimeter as those of said inner piece and inside fins bent to fit the inner perimeter shape of said inner piece, and said adapter is adjustably mounted on said inner piece to cover either holes or slots on said inner piece and never both, and forced high pressurized gas and air mixture through said holes forms inward, upward and concentrating combustion flame joining at a center point above, or through said slots of said inner piece along the inner surface of said outer piece forms outward, upward and spread out combustion flame.
6. A portable outdoor stove for cooking foods comprising:
  - a burner accepting pressured gaseous fuel to produce high power output, and ejecting combustion flame through holes, directing their flames to a center area above,
  - a cylinder shape wind guard surrounding the said burner readily accepting a cooking vessel, and a small gap being formed between the guard and the said vessel tight enough to prevent flame coming out to hurt operator, the said guard having windows opening toward its top on opposite side of the operator for exhaust flame outlet and still preserving the said wind guard function,

a means to support the said wind guard, and

a means to support the said burner for aligning said center area of said flames to said bottom of said vessel,

whereby said flames deliver highest heating power to bottom of said cooking vessel in a safe and stable manner.

7. The stove of claim 6, wherein said cooking vessel can be a wok, or any round bottom and flat in shape.
8. The stove of claim 6, wherein the said supporting means for said wind guard comprises three simple legs;
9. The stove of claim 6, wherein the supporting means for said burner comprises a metal bar with vertical ends. The ends of said metal bar have slot openings and can be mounted with bolts on said wind guard. The relative position of said bar is adjustable by relatively positioning said slot openings with respect to bolts on said wind guard.
10. The stove of claim 9, wherein the said burner is mounted on center of said metal bar and can be rotated with respect to a mounting bolt in said center.
11. The stove of claim 6, further comprising a means to surround said wind guard to prevent the operator from accidentally touching said wind guard during cooking.
12. The stove of claim 6, wherein the outer perimeter surface of said inner piece of said burner further comprises equally spaced slots extending through from bottom to top, and the said stove has an adapter with a flat surface having same number of slots on its outer perimeter as those of said inner piece and inside fins bent to fit the inner perimeter shape of said inner piece, and said adapter is adjustably mounted on said inner piece for said slots and fins to cover either holes or slots on said inner piece and never both, forced high pressurized gas and air mixture through said holes forms inward, upward and concentrating combustion flame joining at a center point above, or through said slots of said inner piece along the inner surface of said outer piece forms outward, upward and spread out combustion flame.